

### Title 20 BOOT CAMP

### **Appliances and Outreach & Education Office**

**Efficiency Division** 

Sacramento, California August 15, 2017



# **Participation Guidelines**

To ensure a successful webinar for all

- Please use the chat feature or the 'raise hand' icon to ask questions or make comments.
- Please mute your phone.
- Please do not place your phone on HOLD.

Contact us for further information at appliances@energy.ca.gov



# Resources

**Title 20 Compliance Assistance Call Center** 

Toll free inside California (888) 838-1467

From outside of California (916) 651-7100

appliances@energy.ca.gov

### Title 20 Compliance Assistance listserv

http://www.energy.ca.gov/efficiency/listservers.html

### Webinar documents / How to certify to MAEDBS

http://www.energy.ca.gov/appliances/forms/index.html#webdocs



### **Title 20 BOOT CAMP**

Our webinar will begin at the top of the hour.

This slide deck will be posted on our webpage after the presentation at

www.energy.ca.gov/appliances



# California Energy Commission

- California's primary energy policy and planning agency
- Sets building and appliance efficiency standards
- Licenses thermal power plants 50 MW or larger
- Invests in energy innovation and research
- Forecasts energy supply and demand
- Prepares for energy emergencies
- Develops renewable energy
- Transforms transportation





# TODAY'S AGENDA

**10:00 a.m.** Title 20 Appliance Efficiency Regulations Overview

**10:30 a.m.** Appliance Database Basics, Certification Process Overview

11:00 a.m. What's New and Upcoming for California's Appliance Efficiency Standards

**11:30 a.m.** Resources for Accessing Information about Title 20



10:00 a.m. – 10:30 a.m.

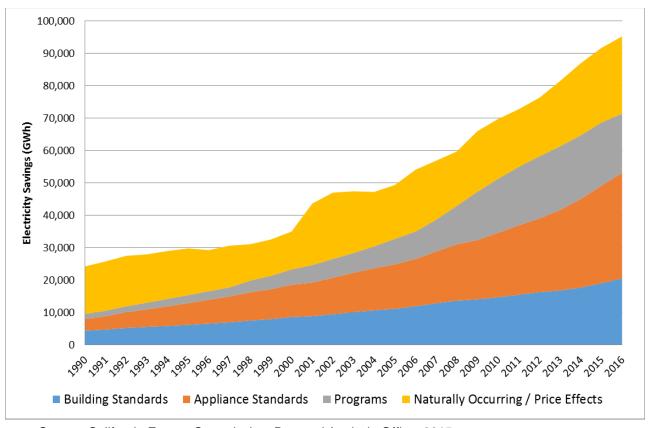
Topic 1:

Title 20
Appliance Efficiency Regulations



### The Benefits of Standards

Since 1975, energy efficiency standards have saved California approximately \$75 billion in electricity costs.



Source: California Energy Commission, Demand Analysis Office, 2015



### State and Federal Efficiency Standards

	Application	Regulatory Entity	First Regulation
Title 20: Appliance Efficiency Regulations (CA)	Appliances	California Energy Commission (CEC)	1976
Federal Appliance Standards*	Appliances	Department of Energy (DOE)	1987
Title 24: Building Energy Efficiency Standards (CA)	Residential and Non- Residential New Construction	California Energy Commission (CEC)	1978

<sup>\*</sup>Federal standards generally **preempt** a state from setting efficiency standards for the same appliance.



#### CALIFORNIA ENERGY COMMISSION





## Governing Laws

### California:

- Administrative Procedure Act
  - o Cal. Gov. Code § 11340 et seq.
- Warren-Alquist Act
  - o Cal. Pub. Res. Code § 25402(c)
- California Code of Regulations, Title 20, §§ 1601-1609

#### Federal:

- Administrative Procedures Act
  - o 5 U.S.C. § 553
- Energy Policy & Conservation Act
  - o 42 U.S.C. § 6291 et seq.
- Code of Federal Regulations, Title 10, Parts 429-431



# Comparison of Rulemaking Documents: Formal Rulemaking

Federal	California
Notice of Data Availability (NODA)	(No equivalent)
Notice of Proposed Rulemaking (NOPR) and Technical Support Document (TSD)	Notice of Proposed Action (NOPA), Initial Statement of Reasons (ISOR), 45-Day Language (Express Terms), and Final Staff Report
Supplemental Notice of Proposed Rulemaking (SNOPR)	15-Day Language
Final Rule	Adoption Hearing Final Statement of Reasons OAL Approval

12



# Title 20 Appliance Efficiency Regulations Title 20 Regulations: Structure and Organization

- 1601 Scope
- 1602 Definitions
  - o 1602.1 Rules of Construction
- 1603 Testing Requirements
- 1604 Test Methods
- 1605 Energy Performance and Design Standards
  - o 1605.1 Federal and State Standards for Federally-Regulated Appliances
  - o 1605.2 State Standards for Federally-Regulated Appliances
  - o 1605.3 State Standards for Non-Federally-Regulated Appliances
- 1606 Listing of Appliances in Database
- 1607 Marking of Appliances
- 1608 Compliance and Enforcement
- 1609 Administrative Penalties



### California & Federal Standards

- Section 1604 test methods pertain to test procedures for all appliances; those covered by the U.S. DOE and/or the California Energy Commission
- Section 1605.1 contains federal standards for covered devices
- Section 1605.2 this is where CA would include state standards for appliances where it seeks a waiver of preemption from DOE
- Section 1605.3 contains CA state-only standards
- Section 1606 contains the reporting requirements for both programs so the standards section is the only place where they are separated



### Title 20 Regulations: Structure and Organization

23 appliance categories grouped (a) through (w)
Many appliance types within in each category (73 total)

### Category groupings as they appear in the database:

- Central Air Conditioners
- Central Heat Pumps
- Cooking and Washing Products
- Electronics
- Fans and Dehumidifiers
- Heating Products
- Lighting Products

- Motor Products
- Non-Central AC & HP Products
- Plumbing Products
- Pool Products
- Refrigeration Products
- Transformer Products
- Water Heater Products



Efficiency Standards Compliance Differences

### Federally-Regulated Appliances

- O Manufacturers must certify to the DOE's Compliance Certification Management System (CCMS) before distributing an appliance in commerce in the U.S. and certify to the Modernized Appliance Efficiency Database System (MAEDBS) before selling or offering the appliance for sale in California.
- o Annual re-certification is required to CCMS, but not to MAEDBS.
- o Federal labeling requirements, if any, apply.
- o Effective dates for standards are generally based on manufacture date.
- o Information required to certify in MAEDBS may differ from the data required for CCMS certification to the DOE.



Efficiency Standards Compliance Differences

### • California's State-Regulated Appliances

- o Manufacturers must certify to the MAEDBS *prior to being offered for sale or sold* in California.
- o Effective dates for standards are based on *manufacture date*<sup>†</sup>.
- Once certified, models remain in the "Approved" section of the database until deleted by the manufacturer or removed to the "Archived" section of the database when a new standard or test method becomes effective.
- O State marking requirements: manufacturer name, model number, and date of manufacture; additional requirements for some appliance types.

**NOTE:** Title 24 requires any covered product installed in new construction to comply with Title 20, including certification to MAEDBS.



### www.energy.ca.gov/appliances

### Title 20 Appliance Efficiency Program



#### Regulations & Rulemakings

- » Current Appliance Efficiency Regulations
- » Current Appliance Efficiency Rulemakings
- » Historical Rulemakings



#### Outreach & Education

- » News, Fact Sheets, FAQs
- » Program Bulletins
- » Webinar Documents



#### Featured Links

2016 California Quality LED Lamp Specifications 3.0 (18-AAER-04)

» Appliance Efficiency Regulations For Lamps, Regulatory Advisory

Consumer Cooking Products, Regulatory Advisory

#### Upcoming Events

#### July 19, 2017

Staff Workshop on Responses to Invitation to Participate in the Phase 2 Appliance Efficiency Regulations & Roadmaps: Commercial and Industrial Fans

#### July 20, 2017

Staff Workshop on Responses to Invitation to Participate in the Phase 2 Appliance Efficiency Regulations & Roadmaps: Spray Sprinkler Bodies, Tub-spout

#### Modernized Appliance Efficiency Database System (MAEDBS)

- » MAEDBS Log In
- » Quick Search
- » Advanced Search
- Company Search (Third Party and Test Labs)

- » Certification Packets
- Instructions for Submitting Appliance Data
- MAEDBS Enhancements and Updates



# Questions?





10:30 a.m. – 11:00 a.m.

Topic 2:

Certification Process to the Modernized Appliance
Efficiency Database
MAEDBS



A state- or federally-regulated new appliance sold or offered for sale in California including via the internet, must be certified to the Energy Commission as compliant with the Title 20 Regulations. This includes:

- Meeting the applicable efficiency standards
- Testing in a test lab approved by the Commission
- Marking each unit per Title 20 §1607
- Certifying each model to the Commission
- Model appears in the Commission's database

**Note:** Once certified to the Commission, that model is compliant until either a new standard or new test method becomes effective for that appliance<sup>†</sup>.



### http://www.energy.ca.gov/appliances/outreach/



### What Test Labs Need to Know

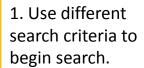


- Prior to testing appliance data, test labs must be approved by the Energy Commission
  - Test lab must submit a Test Laboratory Application using MAEDBS
  - Each appliance type and test method requires approval

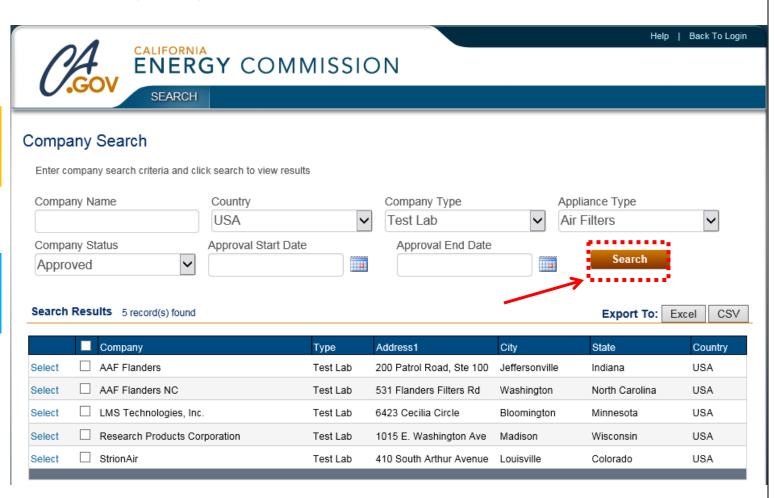
An MAEDBS company account is required to access the Test Laboratory Application. "Registering and Managing an Account" provides all details needed to get set up in MAEDBS.



### **Company Search Database - Test Lab**



2. Click "Search" to view company info from results.





# What is "compliance"?

Scenario	Compliant with most recent standard efficiency level?	Compliant with Certification and Reporting?	Compliant with Title 20?
1	Yes	Yes	Yes
2	No	Yes	Yes
3	Yes	No	No
4	No	No	No

Some products may not meet the most recent standard efficiency levels, but they are legally allowed to be sold due to the manufacture date occurring before the effective date of the standard.

Some products may meet the standard levels but are not listed the CEC database (thus, are not compliant with the law).



Models certified to the MAEDBS initially appear in the **Approved** status view.

When a new standard or test procedure for an appliance takes effect, or the model number is deleted by a manufacturer, those certified models will appear in the **Archive** status view. Models marked with a manufacture date before the effective date of a new standard or test procedure remain lawful for sale.

Any existing model with a manufacture date on or after the effective date of a new standard or new test method must be **recertified** as compliant to the new standard or certified with data that has been derived from the new test method for lawful sale in California.







Efficiency Standards Compliance Differences

### Federally-Regulated Appliances

- o Manufacturers must certify to the DOE's CCMS before distributing an appliance in commerce in the USA.
- Annual re-certification is required.
- o Federal labeling requirements, if any, apply.



Efficiency Standards Compliance Differences

### • California's State-Regulated Appliances

- o Manufacturers must certify to the MAEDBS *prior to being offered for sale or sold* in California.
- o Effective dates for standards based on *manufacture date* (for state and federal).
- Once certified models remain in the "Approved" section of the database until deleted by manufacturer or removed to the "Archived" section of the database when a new standard or test method becomes effective.
- O State marking requirements: manufacturer name, model number, and date of manufacture; additional requirements for some appliance types.
- o Federally-regulated appliances and equipment must be listed in MAEDBS.

**NOTE:** Title 24 requires any covered product installed in new construction to comply with Title 20, including certification to MAEDBS.



### **Create New Account**

CALIFORNIA ENERGY COMMISSION		
	Log In  *User ID  *Password  ✓ I have read and agree to the Login Policy  Forgot your User ID? Forgot your Password  Sign In	?
Don't have an account  Create an authorized CEC account	Public Search  Search for publically available appliance information	3rd Party and Test Laboratory Approvals Search for publically available approval information for 3rd party certifiers and test labs.
Register new account	Appliance Search  Current Build: Version 1.0 Deployed on 04/27	Search



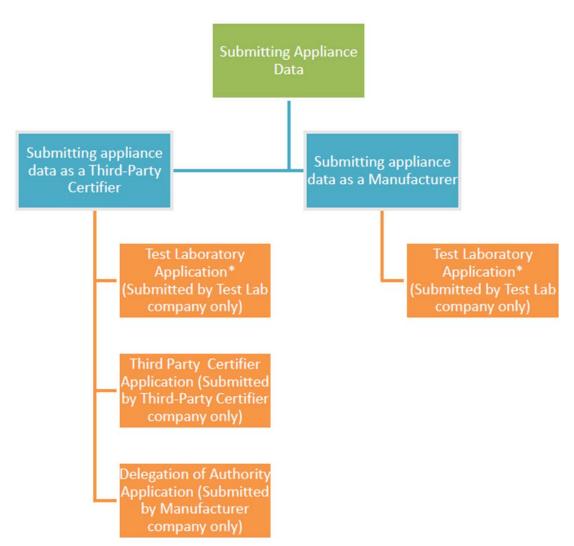
Select appliance category and type

- Choose how to submit appliance data
  - Manually (using computer interface to input)
  - Upload Excel file from your computer

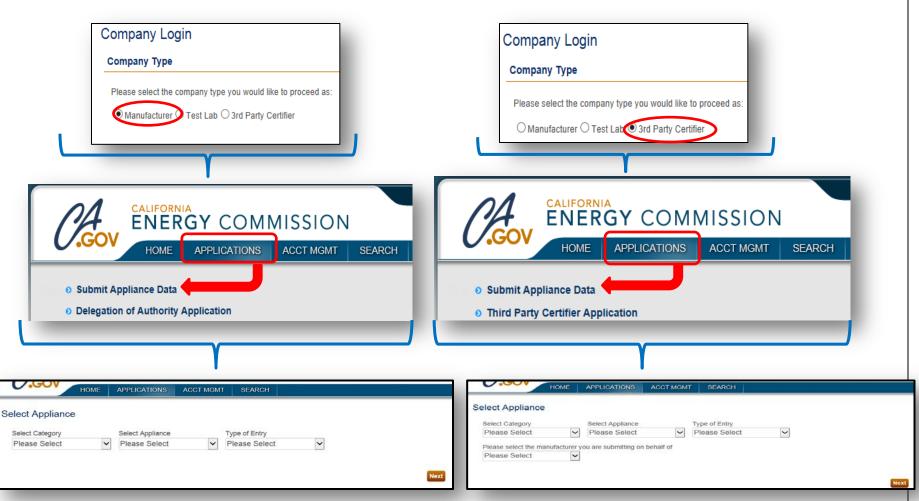
Accept and Sign (type) the appliance submittal declaration

• Submit appliance data for First Stage Validation







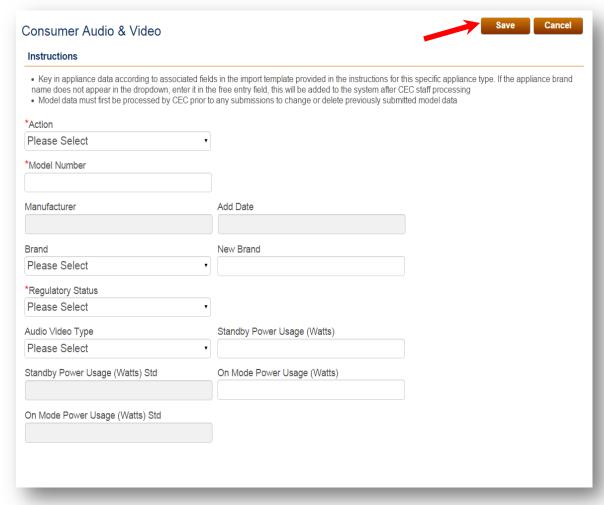




1. Fill out all **fields**.

2. Click

Save





- First Stage Validation
  - Submit data through MAEDBS for quality check of the submitted data format
- Second Stage Validation
  - Successful submissions through the MAEDBS
     First Stage Validation are processed by Energy
     Commission staff
  - Compliance with federal and state standards is verified



- Second Stage Validation results
  - o Successful
    - Appliance data is now available in MAEDBS
  - o Partially Successful
    - Unsuccessful data must be re-submitted
  - o Unsuccessful
    - Appliance data must be re-submitted
- Results are emailed to the certifier



### MAEDBS Enhancements and Updates

The Modernized Appliance Efficiency Database System (MAEDBS) gets updates with new functionality or changes on a regular basis. Details of database enhancements and updates are added to this page as they occur. To receive email announcements of these updates, please subscribe to the Title 20 Compliance Assistance List Serve at the right.

#### **Enhancements**

» April 19, 2017

MAEDBS Enhancement Update: Permanent Magnet Synchronous Motors (PMSM) Certification.

Permanent Magnet Synchronous Pool Pump Motors may now be certified to the Commission to earn compliance with Title 20. A Fact Sheet on this topic may be accessed at <a href="http://energycodeace.com/content/resources-ace/file">http://energycodeace.com/content/resources-ace/file</a> type=fact-sheet

March 14, 2017

Metal Halide Luminaires Certification Update.

The metal halide luminaire data submittal template (<u>Lighting Products</u>) has been updated to allow for certification of models that meet the recent federal standards, effective February 10, 2017.

January 26, 2017

New appliance type created to allow for certification to the Voluntary California Quality LED Lamp Specification 3.0.

A new appliance type has been created under the lighting appliance category for State-regulated Light Emitting Diode Lamps. The template and instruction packet on how to certify this appliance type is located under the Data Certification Forms and Instructions for Manufacturers Lighting Products.

Subscrib	e
List Serve	ompliance Assistance mail Notifications
First name:	
Last name:	
Email addres	ss:
You will receit	ve an email requesting that you subscription.
	Send Reset



# Questions?





11:00 a.m. – 11:30 a.m.

Topic 3:

What's New & Upcoming in the Title 20 Standards



# Recent CA Appliance Efficiency Rulemakings

- 2016 Computers and Computer Monitors
  - o Estimated to save about 2,332 GWh after stock turn over
- 2016 State-regulated LED and Small Diameter Directional Lamps.
  - o Estimated to save 32,792 GWh over the first 13 years
- 2015 Water Efficiency Standards.
  - o Emergency standards for toilets, urinals, faucets, and showerheads expected to save 730 billion gallons of water over 10 years
- 2012 Battery Charger Systems.
  - o Estimated to save 2,200 GWh a year, enough energy to power 350,000 California households for a year
- **2009 Televisions.** 
  - o Estimated to save 6,515 GWh a year, enough energy to power 864,000 single-family homes for an entire year



# New & Upcoming CA Appliance Efficiency Rulemakings

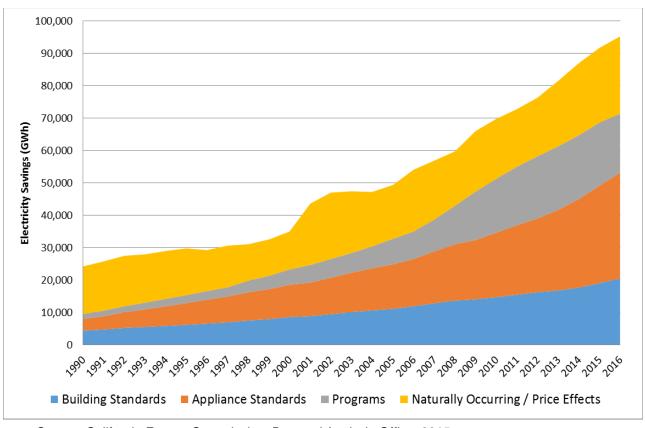
### **New State Standards Effective in 2018**

- Computers (selected types)
- State-Regulated General Service Lamps
- LEDs / Specification 3.0 & Standard
- Small Diameter Directional Lamps
- Showerheads (July 1, 2018)



# The Benefits of Standards

Since 1975, energy efficiency standards have saved California approximately \$75 billion in electricity costs.





## http://www.energy.ca.gov/appliances/rulemaking.html

## Current Appliance Efficiency Rulemakings

### 2016 Rulemaking

### » Docket # 16-AAER-02

The California Energy Commission proposes to amend its Appliance Efficiency Regulations to include Regulations for Computers, Computer Monitors, and Signage Displays.

### 2015 Pre-Rulemaking

### » Docket # 15-AAER-02

In this pre-rulemaking proceeding, the California Energy Commission staff will conduct workshops and meetings to receive comments on proposed standards for Pool Pump Motors and Portable Electric Spas.

- Pool pumps and motor combinations
- replacement pool pump motors
- portable electric spas
- computers
- computer monitors, and
- signage displays.

# ENERGY COMMISSION

### CALIFORNIA ENERGY COMMISSION

## http://www.energy.ca.gov/appliances/rulemaking.html

### Current Appliance Efficiency Rulemakings

### 2017 Rulemaking

#### » Docket # 17-AAER-14

The California Energy Commission will consider the possible adoption of certification regulations for residential air filters and residential pool pump and motor combinations and replacement residential pool pump motors at its August 9, 2017, business meeting. The certification regulations will make permanent the amendments previously adopted as emergency regulations on March 8, 2017.

#### Docket # 17-AAER-03

The California Energy Commission will consider the possible adoption of emergency regulations for Residential Pool Pump and Motor Combinations at its March 8, 2017, business meeting.

### Docket # 17-AAER-02

The California Energy Commission will consider the possible adoption of emergency regulations for Residential Air Filters at its March 8, 2017, business meeting.

### 2017 Pre-Rulemaking

### » Docket # 17-AAER-05 (Phase 2 Pre-Rulemaking dockets 17-AAER-06 through 17-AAER-13)

The California Energy Commission invites interested stakeholders to submit proposals for standards, test procedures, labeling requirements, and/or other measures that will improve the efficiency and reduce the energy or water consumption of the appliances below. Energy Commission staff will consider these proposals, along with the data and information received through the Invitation to Participate, as they draft recommendations for the Energy Commission's consideration as part of the formal rulemaking.

- » 17-AAER-06 Commercial and Industrial Fans and Blowers
- » 17-AAER-07 General Service Lamps (Expanded Scope)
- » 17-AAER-08 Sprinkler Spray Bodies
- » 17-AAER-09 Tub-Spout Diverters

- » 17-AAER-10 Irrigation Controllers
- » 17-AAER-11 Set-Top Boxes
- » 17-AAER-12 Low-Power Modes and Power Factor
- » 17-AAER-13 Solar Inverters

#### Docket # 17-AAER-01

In this pre-rulemaking proceeding, the California Energy Commission staff will conduct workshops and meetings to receive comments on proposed standards for Commercial Tumble Dryers.



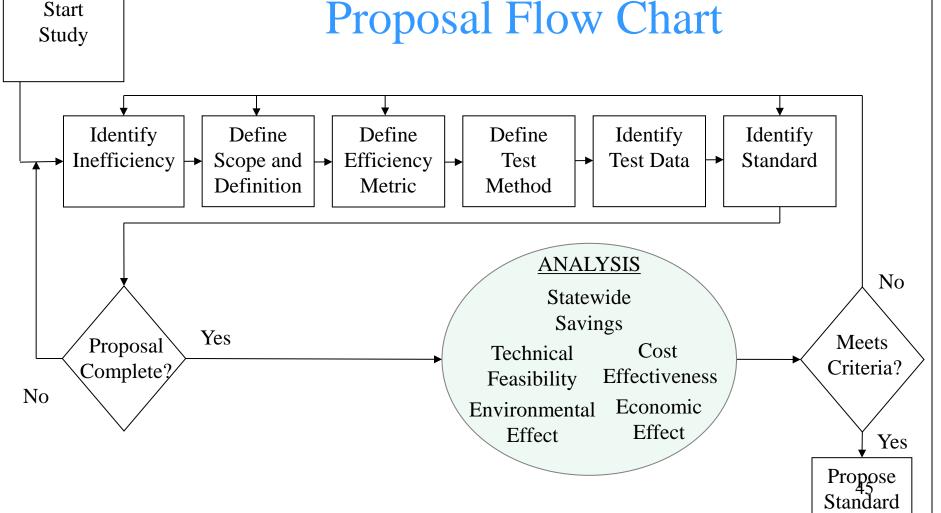
# Phase 2: Appliances and Topics

The CEC has requested proposals on the following appliances:

- Regulations:
  - Commercial and Industrial Fans & Blowers
  - General Service Lamps (Expanded Scope)
  - Spray Sprinkler Bodies
  - Tub Spout Diverters
  - Irrigation Controllers
- Roadmaps:
  - Set-Top Boxes
  - Low Power Modes and Power Factor
  - Solar Inverters



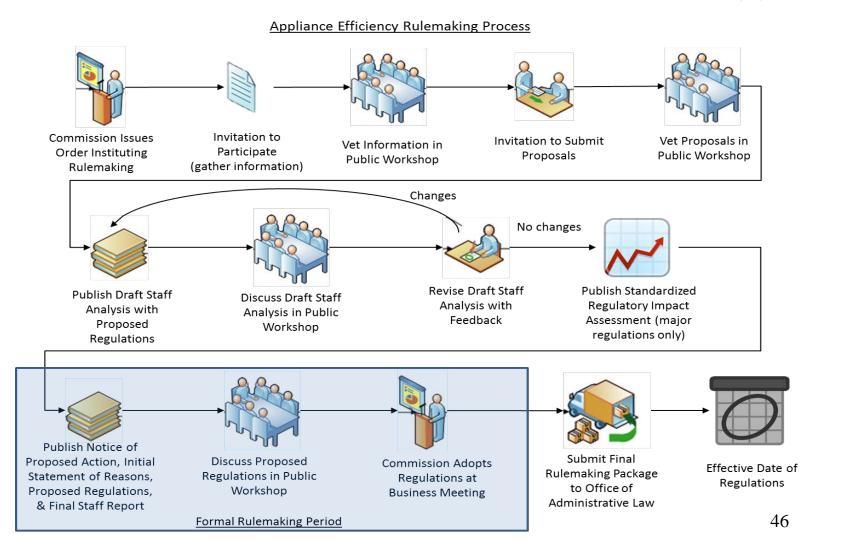
# Appliance Efficiency Standards Proposal Flow Chart





# Title 20 Appliance Efficiency Regulations

1/27/17





# Questions?





11:30 a.m. – 11:45 a.m.

Topic 4:

Ask the CEC



# Ask the California Energy Commission

- Frequently Asked Questions (FAQs)
- Title 20 Compliance Assistance Call Center
- Title 20 Compliance Assistance Listserv
- Title 20 Reference Tool ACE
- Energy Code Ace for Title 20
- Webinar Recordings and PowerPoints



## www.energy.ca.gov/appliances

### Title 20 Appliance Efficiency Program



### Regulations & Rulemakings

- » Current Appliance Efficiency Regulations
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- » Historical Rulemakings



### Outreach & Education

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## Webinar documents / How to certify to MAEDBS

http://www.energy.ca.gov/appliances/forms/index.html#webdocs



## Resources

- Warren-Alquist Act, California Public Resources Code, §§ 25213, 25218(e), 25402(c), 25402.5.4, 25402.11, 25950-25967, <a href="http://www.energy.ca.gov/reports/Warren-Alquist\_Act/">http://www.energy.ca.gov/reports/Warren-Alquist\_Act/</a>
- California Code of Regulations, Title 20, §§ 1601-1609, <a href="http://www.energy.ca.gov/title20/">http://www.energy.ca.gov/title20/</a>
- Proposed Regulations:
  - California Regulatory Notice Register,
     <a href="https://oal.ca.gov/california\_regulatory\_notice\_online/">https://oal.ca.gov/california\_regulatory\_notice\_online/</a>
  - Appliance Rulemaking Dockets,
     <a href="http://www.energy.ca.gov/appliances/rulemaking.html">http://www.energy.ca.gov/appliances/rulemaking.html</a>



## More Resources

- Energy Policy & Conservation Act of 1975, 42 U.S.C. §§ 6291-6317, <a href="https://www.gpo.gov/fdsys/pkg/USCODE-2015-title42/pdf/USCODE-2015-title42-chap77-subchapIII.pdf">https://www.gpo.gov/fdsys/pkg/USCODE-2015-title42-chap77-subchapIII.pdf</a>
- Code of Federal Regulations, Title 10, Chapter II, Subchapter A, Parts 429, 430, or 431, <a href="www.ecfr.gov">www.ecfr.gov</a>
- Proposed Regulations:
  - Federal Register: <u>www.federalregister.gov</u>
  - Rulemaking Dockets: <u>www.regulations.gov</u>



# Questions?

